

ERODE SENGUNTHAR ENGINEERING COLLEGE, PERUNDURAI, ERODE - 638057

An Autonomous Institution, affiliated to Anna University, Chennai

DEPARTMENT OF MECHANICAL ENGINEERING

The Board of Studies meeting of **Department of Mechanical Engineering** for the B.E. (Mechanical Engineering), M.E. (Manufacturing Engineering) and M.E. (Industrial Safety Engineering) degree programs from the academic year 2019 – 20 onwards was convened and held on 17th July, 2019 in the Conference Hall - Administrative Block, Erode Sengunthar Engineering College, Perundurai.

The Minutes of the Meeting is as follows:

ITEM 01 WELCOMING OF BOARD OF STUDY MEMBERS

The Chairman of Mechanical Engineering Board of Studies welcomed all members of Board of Studies. He presented a brief introduction by narrating the achievements of the department and briefed the agenda to be discussed, followed by introduction of all members present.

ITEM 02 TO CONSIDER AND APPROVE THE REGULATIONS OF B.E. (MECHANICAL ENGINEERING) PROGRAMME

The Chairman of Mechanical Engineering Board of Studies presented the Regulations 2019 of B.E. Mechanical Engineering programme. The Board of Studies reviewed the regulations and suggested the following modifications:

- Dr. R. B. Anand and Dr. N. Alagumurthi suggested reducing the total number of credits from 176 to 165, as per the requirements of AICTE Model Curriculum.
- Dr. N. Kulasekharan enquired about the assessment pattern for the zero credit courses; the Chairman replied that evaluation pattern for zero credit courses will be similar to that of the credited courses and that zero credit courses are mandatory.
- Dr. N. Alagumurthi asked the Chairman to verify whether the award of Honor's degree is in vogue in Anna University. The Chairman accepted the same and replied that in case if there is no

such provision, in the grade sheet extra credits earned through MOOC courses, etc. shall be included.

The Board of Studies resolved to approve the regulations of B.E. Mechanical Engineering programme brought forward by the Chairman, incorporating the above changes.

**TO CONSIDER AND APPROVE THE REGULATIONS OF M.E.
ITEM 03 (MANUFACTURING ENGINEERING AND INDUSTRIAL SAFETY
ENGINEERING) PROGRAMME**

The Chairman of Mechanical Engineering Board of Studies presented the Regulations 2019 of M.E. Manufacturing Engineering and M.E. Industrial Safety Engineering. The Board of Studies reviewed the regulations and suggested the following modifications:

- Dr. R. B. Anand and Dr. N. Alagumurthi suggested reducing the total number of credits to 65 for both the PG programs, as per the requirements of AICTE Model Curriculum; currently M.E. Manufacturing Engineering has 71 credits and M.E. Industrial Safety Engineering has 72 credits.
- Dr. N. Alagumurthi suggested reframing Programme Educational Objectives (PEOs) and Programme Outcomes (POs) for PG courses separately.
- Dr. R. B. Anand suggested removing the last row of each semester of Curriculum Table which indicates the total marks under 'CA', 'ES' and 'Total' columns, since it doesn't add any value.

The Board of Studies resolved to approve the regulations of both M.E. Manufacturing Engineering and M.E. Industrial Safety Engineering programs brought forward by the Chairman, incorporating the above changes.

ITEM 04

TO CONSIDER AND APPROVE THE CURRICULUM OF I TO VIII SEMESTERS FOR THE B.E. (MECHANICAL ENGINEERING) PROGRAMMES TO BE OFFERED UNDER R-2019 WITH EFFECT FROM THE ACADEMIC YEAR 2019 – 2020 ONWARDS

The Chairman of Mechanical Engineering Board of Studies presented the Curriculum 2019 of I to VIII for the B.E. Mechanical Engineering. The Board of Studies reviewed the Curriculum and suggested following modifications:

- Dr. M. Chandrasekar and Dr. S.P. Sivapirakasam suggested shifting both ‘Principles of Electrical and Electronics Engineering’ course and ‘Electrical Engineering’ laboratory from I semester to II semester; instead, ‘Engineering Mechanics’ course and ‘Physics and Chemistry’ laboratory shall be shifted from II semester to I semester.
- Dr. N. Kulasekharan emphasized that the Employability enhancement courses such as Life Skills and Life Skills and Logical Reasoning shall be offered as zero credit courses; however, the students should be enlightened about the importance of taking up such courses.
- Dr. M. Chandrasekar suggested allotting 1 hour for lecturing and 3 hours for practicing for ‘Engineering Graphics’ laboratory, instead of 4 hours of practice.
- The Chairman, Mechanical Engineering Board of Studies briefed the importance of language electives (Japanese, French, German, etc.). All the members opined that such innovations in curriculum to improve the employability potential of students are highly appreciable.
- Dr. S.P. Sivapirakasam has suggested offering ‘Strength of Materials’ lab in III semester itself, instead of ‘Machine Drawing’ lab.
- Dr. R.B. Anand pointed out that some course titles like ‘Life Skills’, ‘Life Skills and Logical Reasoning – I’, ‘Logical Reasoning – II and Verbal Ability – I’, ‘Aptitude – II and Verbal Ability – II’ and ‘Aptitude – III and Recruitment Process’ sound similar; to avoid confusion, the titles shall be reframed to indicate one aspect at a time.
- Dr. N. Kulasekaran suggested scrapping ‘Comprehensive Review – IV’ from the VIII semester curriculum to facilitate students to concentrate more on final year project.
- Dr. Chandrasekar opined that ‘Metrology Lab’ shall be shifted from IV semester to V semester and it shall be combined with ‘Dynamics Lab’.
- Dr. S.P. Sivapirakasam has suggested that ‘Heat Transfer Lab’ may be shifted from V semester to

VI semester by replacing 'Technical Seminar'.

- Dr. N. Alagumurthi has clearly pointed out that in the open electives category, only the courses floated by other departments are to be listed; similarly, the open elective courses floated by Mechanical Engineering department to other departments should be listed separately. He further clarified that the students cannot take up the open electives floated by their own department.
- Dr. S.P. Sivapirakasam has suggested working out the weightage of courses offered pertaining to the three major streams of Mechanical Engineering – Design, Manufacturing and Thermal.
- Dr. R. B. Anand suggested removing the last row of each semester of Curriculum Table which indicates the total marks under 'CA', 'ES' and 'Total' columns, since it doesn't add any value.

The Board of Studies resolved to approve the Curriculum of 2019 of I to VIII semesters for the B.E. Mechanical Engineering programme brought forward by the Chairman, incorporating the above changes.

ITEM 05

TO CONSIDER AND APPROVE THE CURRICULUM OF I TO IV SEMESTERS FOR THE M.E. (MANUFACTURING ENGINEERING AND INDUSTRIAL SAFETY ENGINEERING) PROGRAMMES TO BE OFFERED UNDER R-2019 WITH EFFECT FROM THE ACADEMIC YEAR 2019 – 2020 ONWARDS.

The Chairman of Mechanical Engineering Board of Studies presented the Curriculum 2019 of I to IV for the M.E. Manufacturing Engineering and M.E. Industrial Safety Engineering. The Board of Studies reviewed the Curriculum and suggested following modifications.

- Dr. S.P. Sivapirakasam suggested modifying the title of the 'Design and Fabrication of Safety Device' laboratory course for M.E. Industrial Safety Engineering, suitably.
- Dr. N. Alagumurthi suggested that the R 2017 curriculum of Anna University may be followed with minor modifications for both the PG programs.
- All the members suggested continuing with laboratory courses prescribed in R 2017 Curriculum of Anna University for M.E. Manufacturing Engineering program.
- Dr. R. B. Anand suggested removing the last row of each semester of Curriculum Table which indicates the total marks under 'CA', 'ES' and 'Total' columns, since it doesn't add any value.

The Board of Studies resolved to approve the Curriculum of 2019 of I to IV for the M.E. Manufacturing Engineering and Industrial Safety Engineering Programmes brought forward by the Chairman, incorporating the above changes.

ITEM 06

TO CONSIDER AND APPROVE THE SYLLABI OF I TO IV SEMESTERS FOR THE B.E. (MECHANICAL ENGINEERING) PROGRAMMES TO BE OFFERED UNDER R-2019 WITH EFFECT FROM THE ACADEMIC YEAR 2019 – 2020 ONWARDS.

The Chairman of Mechanical Engineering Board of Studies presented the syllabi of I to IV semesters for B.E. Mechanical Engineering program. The Board of Studies reviewed the same and suggested the following modifications:

- Dr. M. Chandrasekar suggested including the topic of ‘Isometric view’ in Unit V and adding ‘Introduction to Perspective Projection’ in ‘Engineering Graphics’ laboratory course.
- Dr. N. Kulasekharan stressed that students should be taught the basics of Computer-aided drafting in ‘Engineering Graphics’ laboratory course. Accordingly the necessary topics shall be included in the syllabus.
- Dr. S.P. Sivapirakasam suggested including the fitting tools and excluding the Centre lathe in the equipment list of ‘Workshop Practice’ lab syllabus.
- Dr. N. Kulasekharan enquired the relevance of having ‘Python Programming’ laboratory course in Mechanical Engineering syllabus. The Chairman, Board of Studies, clarified the importance of studying Python programming and how it will enable the placement opportunities of students in software industries.
- Dr. M. Chandrasekar suggested removing ‘Gas power cycles’ from the syllabus of ‘Engineering Thermodynamics’, and the same shall be included in the syllabus of ‘Thermal Engineering’.
- Dr. S. P. Sivapirakasam suggested that courses like “Renewable Sources of Energy” shall be included in the syllabus. The Chairman replied that the course has been included in the Open Electives and that it will be shifted to Professional Electives.
- Dr. N. Kulasekharan stressed the need for knowledge on modeling and analysis software packages among the students and Dr. M. Pandian replied that the software packages have been listed in the value added courses.

- Dr. R.B. Anand suggested that in order to reduce total credits to 165, 'Gas Dynamics and Jet Propulsion' course shall be removed, if necessary.
- The external BoS members enquired about the necessity of 'Research Methodology' course in the UG syllabus; Dr. M. Pandian clarified that the course has been purposely included with the intention of inculcating the research culture amongst the minds of budding engineers.
- Dr. N. Alagumurthi insisted upon the inclusion of all the mandatory courses specified by AICTE in their model curriculum; for example 'Professional Ethics in Engineering' is currently not included.

The Board of Studies resolved to approve the syllabi of I to IV semesters for B.E. (Mechanical Engineering) Programme brought forward by the Chairman, incorporating the above changes.

ITEM 07 TO CONSIDER AND APPROVE THE SYLLABI OF I TO IV SEMESTERS FOR THE M.E. (MANUFACTURING ENGINEERING AND INDUSTRIAL SAFETY ENGINEERING) PROGRAMMES TO BE OFFERED UNDER R-2019 WITH EFFECT FROM THE ACADEMIC YEAR 2019 – 2020 ONWARDS.

The Chairman of Mechanical Engineering Board of Studies presented the syllabi of I to IV for the M.E. Manufacturing Engineering and Industrial Safety Engineering. The Board of Studies reviewed the syllabus and suggested following modifications.

- Dr. R.B. Anand and Dr. S.P. Sivapirakasam have suggested incorporating 'Research Methodology' course in the syllabi of P.G. programs.

The Board of Studies resolved to approve the syllabi of I to IV semesters for M.E. (Manufacturing Engineering and Industrial Safety Engineering) programs brought forward by the Chairman, incorporating the above changes.

ITEM 08 AS PER THE INSTRUCTIONS FROM DIRECTOR / ANNA UNIVERSITY ACADEMIC COURSES, FOR III TO VIII SEMESTERS OF CURRENT 2nd & 3rd YEAR STUDENTS OF B.E. (MECHANICAL ENGINEERING), THE SAME SYLLABUS UNDER ANNA UNIVERSITY 2017 REGULATIONS WILL BE FOLLOWED.

The Chairman informed that, as per the instructions from Director / Anna University - Academic courses, for III to VIII semesters of current 2nd & 3rd year students of B.E. (Mechanical Engineering), the same syllabus under Anna university 2017 regulations shall be followed.

ITEM 09 AS PER THE INSTRUCTIONS FROM DIRECTOR / ANNA UNIVERSITY ACADEMIC COURSES, FOR VII & VIII SEMESTERS OF CURRENT 4th YEAR STUDENTS OF B.E. (MECHANICAL ENGINEERING), THE SAME SYLLABUS UNDER ANNA UNIVERSITY 2013 REGULATIONS WILL BE FOLLOWED.

The Chairman informed that, as per the instructions from Director / Anna University - Academic courses, for VII to VIII semesters of current 4th year students of B.E. (Mechanical Engineering), the same syllabus under Anna university 2013 regulations shall be followed.

ITEM 10 AS PER THE INSTRUCTIONS FROM DIRECTOR / ANNA UNIVERSITY ACADEMIC COURSES, FOR III & IV SEMESTERS OF CURRENT 2nd YEAR STUDENTS OF M.E. MANUFACTURING ENGINEERING AND M.E. INDUSTRIAL SAFETY ENGINEERING, THE SAME SYLLABUS UNDER ANNA UNIVERSITY 2017 REGULATIONS WILL BE FOLLOWED.

The Chairman informed that, as per the instructions from Director / Anna University - Academic courses, for III to IV semesters of current 2nd year students of M.E. Manufacturing Engineering and M.E. Industrial Safety Engineering, the same syllabus under Anna university 2017 regulations shall be followed.